## **Project Note**

Date: June 2, 2008

Project Number: TTEMI-05-003-0019

Name: Shanna Davis Firm: Tetra Tech EM Inc. Title: Environmental Scientist

Time: 1052

Signature:

Subject: Surface area of ponds at the Barite Hill property

Shanna Danis

## PROJECT NOTE SUMMARY

To determine the surface area of the ponds, Tetra Tech used the information gathered during the 2007 Response Engineering and Analytical Contract (REAC) removal site evaluation (RSE) (Ref. 34).

In February 2007, the U.S. Environmental Protection Agency (EPA) directed REAC to conduct a RSE at the Barite Hill property and the field activities were conducted in March 2007 (Ref. 34, pp. 1, 2). The surface area of each pond was determined from aerial photographs; however, the aerial photograph date used to calculate the surface area of the ponds is not known (Ref. 34, p. 7).

Two figures are attached. The first figure shows the layout of the ponds and is contained in Reference 6, Figure 2. The second figure shows how the ponds are labeled and is contained in Reference 34, p. 23.

## Process Area Ponds

Pond A (Pregnant Pond)

Surface Area - 36,700 square feet (ft<sup>2</sup>)

Pond B (Barren Pond)

Surface Area – 18,200 ft<sup>2</sup>

Pond C (Rinse Pond 1)

Surface Area – 16,600 ft<sup>2</sup>

Pond D (Rinse Pond 2)

Surface Area - 8,300 ft<sup>2</sup>

Pond E (Contingent Pond)

Surface Area – 26,000 ft<sup>2</sup>

Total Process Area Pond Area =  $36,700 \text{ ft}^2 + 18,200 \text{ ft}^2 + 16,600 \text{ ft}^2 + 8,300 \text{ ft}^2 + 26,000 \text{ ft}^2 = 105,800 \text{ ft}^2$ 

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## PROJECT NOTE SUMMARY (Continued) Permanent Leach Pad Solution Ponds Pond F (Barren Pond) Surface Area - 100,000 ft<sup>2</sup> Pond G (Pregnant Pond) Surface Area – 26,900 ft<sup>2</sup> Pond H (Rinse Pond) Surface Area – 22,200 ft<sup>2</sup> Total Permanent Leach Pad Solution Pond Area = 100,000 ft<sup>2</sup> + 26,900 ft<sup>2</sup> + 22,200 ft<sup>2</sup> $= 149,100 \text{ ft}^2$ RESPONSE REQUIRED (x) None () Phone call () Memo () Letter () Report cc: File (x) Project Manager () Principal Investigator () Other (specify)



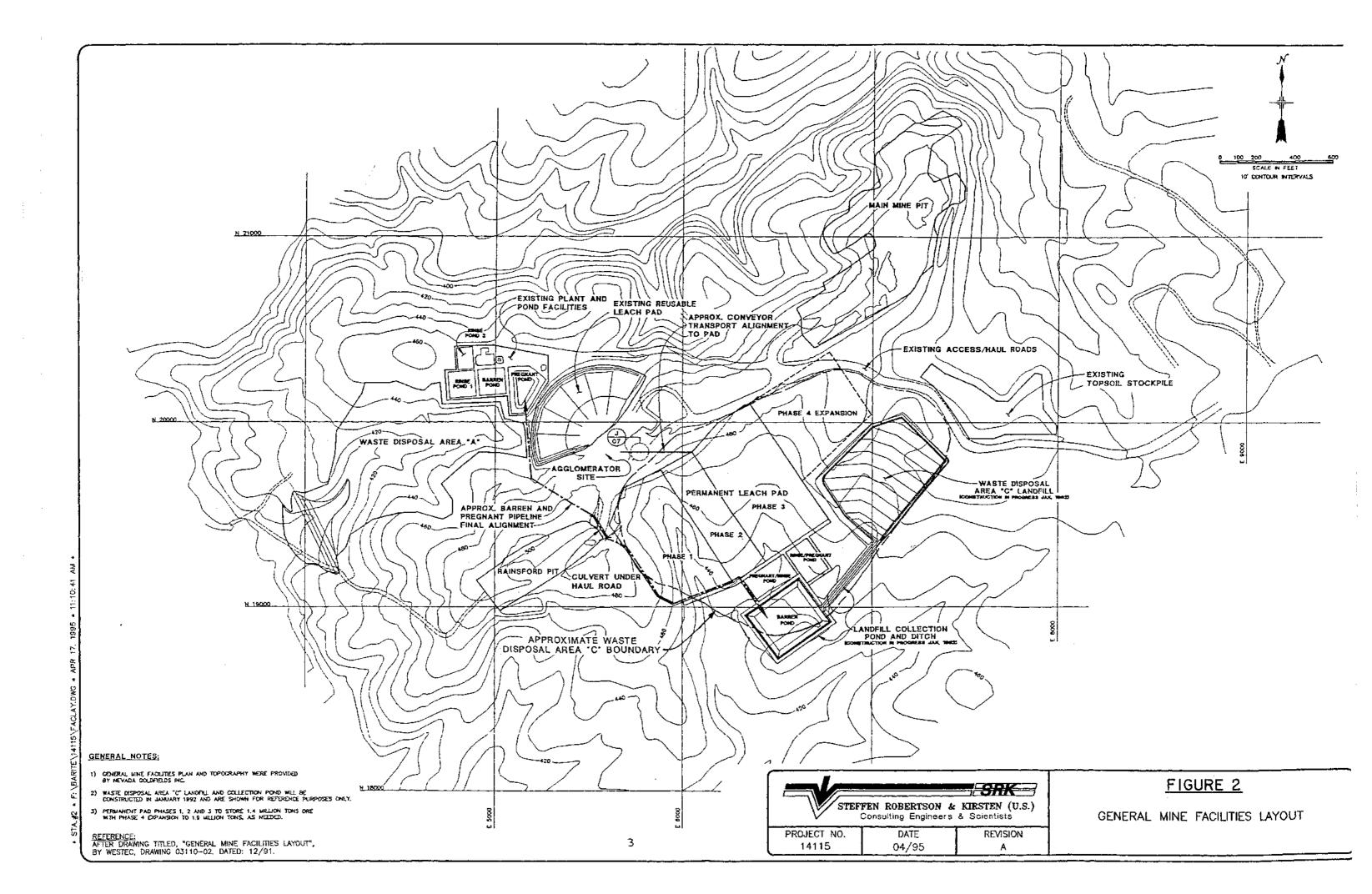
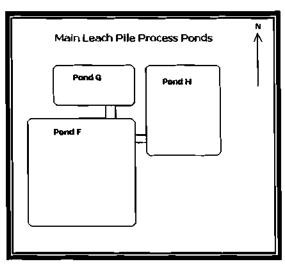
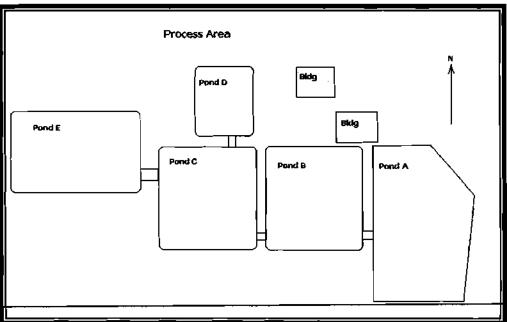


Table 17. Process Pond Labels and pH Results
Barite Hill Gold Mine
McCormick County, SC
June 2007

Pond	рH
A	9.30
B	9.10
C	9.08
D	9.20
E	8.48
F	7.20
G	8.10
H	6.85
	7.95





Notes:

Pond I was located west of the main parking area. It can be described as a shallow depression with a large quantity of downed trees that collects pooled water.

Pond locations and sizes are given for reference only. Figures are not to scale.